

JUL 11 2005

From the
INTERNATIONAL SEARCHING AUTHORITY

To:
MARSH FISCHMANN & BREYFOGLE LLP
3151 SOUTH VAUGHN WAY, SUITE 411
BREYFOGLE, ROSS E.
AURORA, CO 80014

PCT MARSH FISCHMANN & BREYFOGLE LLP

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

Applicant's or agent's file reference 12854-20392		Date of mailing (day/month/year) 08 JUL 2005
International application No. PCT/US05/08995		FOR FURTHER ACTION See paragraph 2 below
International filing date (day/month/year) 18 March 2005 (18.03.2005)	Priority date (day/month/year) 19 March 2004 (19.03.2004)	
International Patent Classification (IPC) or both national classification and IPC IPC(7): E21B 43/28 and US Cl.: 75/712, 711, 743		
Applicant NEWMONT USA LIMITED		

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/ US Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (703) 305-3230	Authorized officer Roy King Telephone No. (703) 308-0651
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**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

PCT/US05/08995

Box No. I Basis of this opinion

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ This opinion has been established on the basis of a translation from the original language into the following language _____, which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).

2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:

a. type of material

☐ a sequence listing

☐ table(s) related to the sequence listing

b. format of material

☐ in written format

☐ in computer readable form

c. time of filing/furnishing

☐ contained in international application as filed.

☐ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority for the purposes of search.

3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

4. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/US05/08995

Box No. V Reasoned statement under Rule 43 bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims <u>4-7</u>	YES
	Claims <u>1-3 and 8-54</u>	NO
Inventive step (IS)	Claims <u>NONE</u>	YES
	Claims <u>1-54</u>	NO
Industrial applicability (IA)	Claims <u>1-54</u>	YES
	Claims <u>NONE</u>	NO

2. Citations and explanations:

Claims 1-3 and 8-54 lack novelty under PCT Article 33(2) as being anticipated by Lesty et al. Lesty et al teaches forming a heap for heap leaching, well formation, surveying the heap to and adjusting the leaching to further leach incompletely leached sections of the heap, where the material to be extracted can be any desired type of material including gold, copper or a base metal, thereby showing all aspects of the above claims.

Claims 4-7 lack an inventive step under PCT Article 33(3) as being obvious over Lesty et al in view of Bodine. As applied to claim 1 above, Lesty et al shows all aspects of the above claims except the use of a fracture process for enhancing the extractive capabilities of the lechant in the heap. Bodine teaches that by inducing cracks or fracture in the heap lechant can more easily access areas of the heap which are insufficiently leached. The manner of induction of the fracture, whether through hydraulic means or sonic means as taught by Bodine, are not seen to impart any inventive difference in the process as a whole since the results of both fracture processes are substantially the same. Because improved lechant capabilities are also desirable in Lesty et al, motivation to include a fracture step, as disclosed by Bodine, would not have required an inventive step to one of ordinary skill in the art at the time the invention was made.

Claims 1-54 meet the criteria set out in PCT Article 33(4), and thus possess industrial applicability because the subject matter claimed can be made or used in industry.